THERAPY ACCELERATION PROGRAM

LORE GRUENBAUM, VP, TAP
JAVEED FROOZAN, VP, BD & SA

March 2021
The mission of The Leukemia & Lymphoma Society (LLS) is to cure leukemia, lymphoma, Hodgkin’s disease and myeloma, and improve the quality of life of patients and their families.

We fund **RESEARCH** to advance lifesaving treatments.

We provide patients, survivors, caregivers, families and healthcare professionals with hope, guidance, **EDUCATION** and **SUPPORT**.

We drive **ADVOCACY** for policies that protect patient access to lifesaving treatment.

Approximately every **3 minutes** someone in the U.S. is diagnosed with blood cancer.

Nearly **1.4 million** people in the U.S. are living with or in remission from leukemia, lymphoma or myeloma.

About **30 percent** of blood cancer patients still do not survive five years after diagnosis.

About **40 percent** of all pediatric cancers are blood cancers.
LLS MISSION INVESTMENT IS SUPPORTED BY MULTIPLE REVENUE SOURCES

OUR IMPACT

- Invested nearly $1.3 billion in research and development worldwide since founded in 1949
- Helped advance 52 of 60 FDA approved blood cancer drugs
- Supported >93,000 patients since inception
- Responded to 20,000 inquiries in 2019
LLS GLOBAL RESEARCH AND DEVELOPMENT FOCUS
Research and development programs and clinical trials using LLS resources

~$50 Million/yr over past 20 years at over 80 institutions with >4,000 projects total

~$10 Million/yr venture philanthropy initiative funding 70 portfolio projects since 2007

LLS Sponsored precision medicine trial

Academic Grants

PedAL

Therapy Acceleration Program®

Beat AML® Master Clinical Trial

DISCOVER
Research Grant Programs

DEVELOP
Beat AML Initiative

COMMERCIALIZATION
Patient Education, Access & Advocacy
LLS THERAPY ACCELERATION PROGRAM (TAP)

Venture philanthropy funding to support novel therapies

Established in 2007

>$125 Million invested to date
- Biotech: >$90 Million
- Institutions: ~$35 Million
- 70 financings of companies and assets
- >20 assets currently in clinical development

3 FDA-Approved Therapies
- Vyxeos (AML)
- Yescarta (DLBCL, tFL, PMBCL)
- Elzonris (BPDCN)

ROI Focus:
- FDA Approvals
- Assets in clinical development
- Strategic transactions & financing for portfolio companies
- Financial ROI to LLS

www.LLS.org/therapy-acceleration-program

BEATING CANCER IS IN OUR BLOOD.

New - FY21
LLS TAP SCIENTIFIC & BUSINESS LEADERSHIP

Lore Gruenbaum, PhD
VP, TAP
- 20 years drug discovery & clinical development
- VP, Gotham Therapeutics; Exec Dir, Applied Biomath
- Biomarker Head, Virology, Roche; Group Leader, BI
- Yale postdoctoral work, principal investigator and collaborator on several SBIR grants

Lee Greenberger, PhD
SVP, Chief Scientific Officer
- 20 years big pharma and biotech
- Oversight responsibility for >$50 M annual research budget
- Advanced > 10 oncology therapeutics into the clinic
- Search & due diligence experience with big pharma

Javeed Froozan, MBA, BS
VP, Business Development
- 25 years biopharma and health technology value creation
- Sr. Dir, Emergent BioSolutions, Multiple start-ups/exits, 2 IPOs
- Business lead on EBS-Trubion M&A transaction. Alliance Manager for Pfizer relationship
- Strategic Investments, M&A, Business Development, Asset Management, and Economic Development

Blaine Robinson, PhD
Executive Director, TAP
- 15 years research & clinical development in blood cancer
- Search & Diligence on 100+ projects
- Scientific lead for over 20 TAP projects including Constellation, Kymera, Ryvu & most recently Abintus, Caribou & Immune-Onc
- Pediatric leukemia researcher, Children’s Hospital of Philadelphia

Jun Xu, PhD
Executive Director – TAP Lead
- 20 years oncology/immunology drug discovery/development
- Search & Diligence on 100+ projects
- Scientific lead for over 20 TAP projects including multiple high impact ones, such as Stemline, Kite, argenX, Forty Seven & most recently Carisma

Therapy Acceleration Program Committee: https://www.lls.org/therapy-acceleration-program/oversight
TAP GOALS & INVESTMENT STRATEGY
Accelerate innovative blood cancer therapies and generate ROI for LLS mission

Focus on high-value assets:
- Existing and emerging populations with high unmet needs
- Gaps in current and emerging treatment landscape
- Innovative science, first-in-class assets
- First-in-heme/onc and registration trials
- Strong intellectual property, management, and finances

Average annual number
2 PATHS TO CO-INVEST WITH INVESTORS AND VENTURE PHILANTHROPIES

**Strategic**
- Range of Investment: $2 Million to $10 Million
- Presentation to TAP Committee
- Typically, 3-6 months to reach TAP Committee

**Opportunistic**
- Target Investment: $500,000
- LLS TAP team briefs TAP Committee Chair
- Transaction completion in 1-3 months
TAP VALUE ADD TO BIOTECH COMPANIES

TAP-funded companies benefit from LLS blood cancer insight

- Deep knowledge of indications and rapidly changing SoC
- Unique scientific, clinical, and drug development expertise
- Patient access services to enable understanding of patient needs
- Immediate access to extensive KOL network
- Pharmaceutical, biotech, and research institution partner connections
- Regulatory insight through LLS initiatives (Beat AML Master Clinical Trial®)

TAP record of success provides scientific & investment credibility, and visibility enabling companies to raise additional funds.
TAP ACADEMIC CLINICAL MODEL

Co-fund assets with institutions on clinical stage projects

- **Therapeutics Development**
  Collaborate with leading institutions on assets with potential to outlicense or spin out

- **Clinical Indication Expansion**
  Actively solicit and fund innovative ISTs to impact the current SoC

- **Special Projects**
  Build collaborations with non-profits and other cooperative groups
TAP PORTFOLIO THERAPEUTIC PLATFORMS FUNDED (2007-2020)

Portfolio is aligned with strong industry focus on Targeted Therapy and reflects growing interest in Cell and IO Therapies in blood cancer

- Targeted Therapy
- Novel IO/antibody
- Cell Therapy
- Epigenetic
- Fusion
- Vaccine
- ADC
- Novel Chemo
- Bispecific
- Protein Degrader
- RNA

66 Projects

$118 Million
TAP PORTFOLIO INVESTMENTS IN ACUTE MYELOID LEUKEMIA (AML)

TAP team understands & successfully invests in complex therapeutic areas

High Unmet Medical Need
- 72,000 newly diagnosed in 8 major markets (2019)
- >10,000 deaths per year in US
- Complex, heterogeneous disease
- Ineffective long-term disease control with current therapies
- Elderly patients not fit for chemo
- Growing use of targeted therapies and combinations

Significant Market Opportunity
- Global AML market $1.4 Billion (2019)
- CAGR 13.6% (projected to 2029)
## TAP PORTFOLIO ASSETS IN DEVELOPMENT

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Target/Modality</th>
<th>Indications</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 2 Reg / Phase 3</th>
<th>FDA status</th>
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<tbody>
<tr>
<td>Magrolimab + Azacitidine</td>
<td>CD47 antibody</td>
<td>MDS</td>
<td></td>
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<tr>
<td>AFM13</td>
<td>CD30/CD16A bispecific engager</td>
<td>PTCL</td>
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<tr>
<td>Pelabresib + Rufusolitinib</td>
<td>BET small molecule</td>
<td>MPN</td>
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<tr>
<td>Duvelisib</td>
<td>PI3Kδ/γ small molecule</td>
<td>PTCL</td>
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<tr>
<td>Magrolimab + Rituximab</td>
<td>CD47 antibody</td>
<td>DLBCL</td>
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<tr>
<td>Curtisuzumab + Azacitidine</td>
<td>CD70 antibody</td>
<td>AML</td>
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<td>K-NKO02</td>
<td>NK cell therapy</td>
<td>AML/MDS</td>
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<tr>
<td>KO-539</td>
<td>Menin small molecule</td>
<td>MLL leukemia</td>
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<td>STRG-001</td>
<td>CD74 antibody drug conjugate</td>
<td>MM/FL/MCL/</td>
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<tr>
<td>Mavorixafort + Ibrutinib</td>
<td>CXCR4 small molecule</td>
<td>Waldenström macroglutinemia</td>
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<tr>
<td>SEL120</td>
<td>CDK8/9 small molecule</td>
<td>AML/MDS</td>
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<td>PVX-410 + ACY-241 +/- Len vaccine</td>
<td>XBP1/CD138/CS1 Smoldering myeloma</td>
<td>OncoPep</td>
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<td>NEXI-001</td>
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<tr>
<td>BXT-A51</td>
<td>CK1α/CDK7/CDK9 small molecule</td>
<td>AML/MDS</td>
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<td>IO-202</td>
<td>LILRB4 antibody</td>
<td>AML/CMML</td>
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<tr>
<td>CB-010</td>
<td>CD19/PD1 KO allogeneic CAR</td>
<td>NHL</td>
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<td>KT-413</td>
<td>IRAK4iMID heterobifunctional degrader</td>
<td>Lymphoma</td>
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<tr>
<td>TBD</td>
<td>in vivo CAR</td>
<td>Hematological malignancies</td>
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<tr>
<td>TBD</td>
<td>CAR macrophage</td>
<td>Hematological malignancies</td>
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Updated March 2021
TAP FUNDED ASSETS CREATE STRATEGIC VALUE

TAP portfolio partners have had successful M&A, collaboration and license transactions

LLS TAP Funding

$40 Million

Strategic Transactions

$20 Billion
# TAP PORTFOLIO COMPANY WITH ASSETS IN ACTIVE BLOOD CANCER TRIALS

<table>
<thead>
<tr>
<th>Equity since TAP Funding*</th>
<th>TAP Portfolio Company</th>
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</thead>
<tbody>
<tr>
<td>$&gt;1$ Billion</td>
<td>argenx Epizyme</td>
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<tr>
<td>$&gt;500$ Million</td>
<td>Constellation Kura²</td>
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<tr>
<td>$250$-$500$ Million</td>
<td>Curis Forty Seven¹ ²</td>
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<tr>
<td>$100$-$250$ Million</td>
<td>Affimed Caribou²  Neximmune²  X4²</td>
</tr>
<tr>
<td>$50$-$100$ Million</td>
<td>BioTheryx²  Carisma²  Immune-Onc²  Ryvu WindMIL²</td>
</tr>
<tr>
<td>$&lt;50$ Million</td>
<td>Abintus²  OncoPep²</td>
</tr>
</tbody>
</table>

Table includes assets without a regulatory approval. *GlobalData as of March 15, 2021

1: LLS equity participation plus asset funding (05/2020 M&S by Gilead); 2: LLS equity

**SIGNIFICANT EQUITY FINANCING RAISED SINCE LLS TAP FUNDING**
KEY POINTS

LLS TAP has established record of success
▪ Targeting unmet medical needs
▪ Leading to FDA approvals of life changing therapeutics
▪ Creating value for patients, companies and ROI for the LLS mission

LLS would like to expand the reach & impact of the TAP program
▪ Leverage its unique expertise in novel collaborations
▪ Attract more companies and investors to blood cancer indications
▪ Expand TAP capacity to support the most promising assets

For more information, contact:
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Javeed Froozan, MBA 914.821.8817 | Javeed.Froozan@LLS.org
TAP
SUCCESS STORIES
TAP SUCCESS: NOVEL LIPOSOMAL CYTOTOXIC THERAPY

Vyxeos® is the first FDA-approved treatment for two types of poor-prognosis AML (2017)

ACQUIRED BY JAZZ PHARMA FOR $1.5 BILLION IN 2016

LLS TAP PROVIDED:

$9.15 MILLION ASSET FUNDING

ROI: $25.3 MILLION

Five-year final results of a phase 3 study of CPX-351 versus 7+3 in older adults with newly diagnosed high-risk/secondary AML

J. Lancet et al., ASCO 2020
TAP SUCCESS: CD19 CHIMERIC ANTIGEN RECEPTOR (CAR) T-CELL THERAPY

Yescarta® is the first FDA-approved CAR-T Therapy in NHL (2017)
LLS has invested > $80 M in Cellular Immunotherapy since 1998

ACQUIRED BY GILEAD FOR $11.9 BILLION IN 2017
LLS TAP PROVIDED:
$2.5 MILLION ASSET FUNDING
ROI: $6.25 MILLION

Long-term safety and activity of axicabtagene ciloleucel in refractory large B-cell lymphoma (ZUMA-1): a single-arm, multicenter, Ph 1-2 trial

Locke et al. 2019. Lancet Oncology
TAP SUCCESS: NOVEL TARGETED CD123 FUSION PROTEIN

*Elzonris®* is the first approved therapy for rare blood cancer indication BPDCN (2018)

ACQUIRED BY MENARINI GROUP FOR $677 MILLION IN 2020

LLS TAP PROVIDED:

$2.9 MILLION NET ASSET FUNDING

ROI: $5.8 MILLION TO DATE

Treatment outcomes of 29 patients with blastic plasmacytoid dendritic cell neoplasm (BPDCN) who received first-line treatment with tagraxofusp: Probability of overall survival

Pemmaraju et al., 2019. NEM
TAP SUCCESS: MAGROLIMAB (ANTI-CD47 ANTIBODY)

Magrolimab + Azacitidine induces high response rates in MDS and AML
Initiation of registration-enabling studies in 2020

ACQUIRED BY GILEAD FOR $4.9 BILLION IN 2020

LLS TAP PROVIDED:

$4.175 MILLION ASSET FUNDING
$3 MILLION EQUITY INVESTMENT

ROI: >$40 MILLION

Magrolimab blocks the ‘don’t eat me’ signal on tumor cells

Magrolimab + AzA induces a 91% ORR (42% CR) in MDS and 64% ORR (56% CR/CRI) in AML
• Responses deepened over time with a 56% 6-month CR rate in MDS patients (assessed in all patients 6 months after initial treatment)
• Median time to response is 1.9 months, more rapid than AZA alone
• Magrolimab + AZA efficacy compares favorably to AZA monotherapy (CR rate 6-17%1,2)

TAP SUCCESS: KO-539 (MENIN INHIBITOR)
First-in-class inhibitor of the menin-MLL interaction in Ph1 trial for patients with relapsed/refractory AML

KO-539 is a potent & selective menin-MLL inhibitor with robust activity in models of MLL-rearranged AML

Grants initially and then TAP supported preclinical development (including chemistry) of menin-MLL interaction inhibitors by Jolanta Grembecka at University of Michigan and licensing of assets to Kura Oncology in Dec 2014

KO-539 received orphan drug designation in July 2019; in ph1/2a trial for r/r AML with MLL fusions/NPM1 mutations (FPI in Sep 2019)

PRECLINICAL COMPOUNDS RELATED TO KO-539 LICENSED TO KURA ONCOLOGY IN 2015

LLS TAP PROVIDED:

$6.31 MILLION ASSET FUNDING TO U MICHIGAN

ROI: EQUITY: 26,000+ SHARES + $26,000+ CASH TO DATE

Burrows et al. 2017. AACR poster
THERAPY ACCELERATION PROGRAM COMMITTEE

Casey Cunningham, MD (Chair) +
Santé Ventures

Giulio Draetta, MD, PhD
The University of Texas MD Anderson Cancer Center

Christoper Flowers, MD, MS, FASCO +
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Patrick Fortune, PhD, MBA
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